Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 06618-606001	Application No. 09/816,755
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant: William Goddard III, et al.	
		Filing Date: March 23, 2001	Group Art Unit: ~~1644~~ 1631

U.S. Patent Documents

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
CM	AA	5,940,307	08/17/1999	Fischbarg et al.			
	AB						
	AC						
	AD						
	AE						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	AF							
	AG							
	AH							
	AI							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
CM	AJ	Juretic et al., "Conformational Preference Functions for Predicting Helices in Membrane Proteins", *Biopolymers*, (1993) 33:255-273
	AK	Huang et al., "*Ab Initio* Fold Prediction of Small Helical Proteins Using Distance Geometry and Knowledge-Based Scoring Functions", *Journal of Molecular Biology*, (1999) 290:267-281
	AL	Dombi et al., "Analysis of Protein Transmembrane Helical Regions by a Neural Network", *Protein Science*, (April 1994) 3:557-566
	AM	Sansom et al., "Modeling Transmembrane Helix Bundles by Restrained MD Simulations", *Methods in Molecular Biology*, (2000) 143:325-347
	AN	Uechi et al., An Automated Structure Prediction System by Lattice Model for Seven-Helix-Type Membrane Proteins", *Genome Information Services*, (1999) 14:239-240
	AO	
	AP	

Examiner Signature	Date Considered
	8/20/03

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Other Documents (include Author, Title, Date, and Place of Publication)		
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CAL	AO	Mathiowetz, A.M., Jain, A., Karasawa, N., & Goddard III, W.A. *"Protein Simulations using Techniques Suitable for Very Large Systems: the Cell Multipole Method for Nonbond Interactions and the Newton-Euler Inverse Mass Operator Method for Internal Coordinate Dynamics"* Proteins (1994) 20, p. 227
	AP	Mayo, S. L., Olafson, B.D. & Goddard III, W.A. *"DREIDING - a generic force field for molecular simulations"* J. Phys. Chem. (1990) 94, 8897-8909
	AQ	McMartin et al., *"QXP: Powerful, Rapid Computer Algorithms for Structure-Based Drug Design"* Journal of Computer-Aided Molecular Design, (1997) 11:333-344
	AR	Morris, G.M., Goodsell, D.S., Halliday, R.S., Huey, R., Hart, W.E., Belew, R.K., and Olson, A.J., (1998) J. Comp. Chem., 14, 1639-1662
	AS	Pilpel Y, Lancet D. 1999. The variable and conserved interfaces of modeled olfactory receptor proteins. Prot. Sci. 8, 969-977 (1999)
	AT	Rappé, A.K. & Goddard III, W.A. Charge Equilibration for Molecular Dynamics Simulations. J. Phys. Chem. 95, 3358 (1991)
	AU	Reshetnikova, L., Moor, N., Lavrik, Ol, Vassylyev, G. *"Crystal Structures of Phenylalanyl-tRNA Synthetase Complexed with Phenylalanine and a Phenylalanyl-adenylate Analogue"* J. Mol. Biol. (1999) 287, pp. 555-568
	AV	Schertler, G.F.X. Structure of rhodopsin. Eye 12, 504-510 (1998)
	AW	Sharma N., Furter R., Kast P., Tirrell D.A., (2000), FEBS Lett. 467, 37-40
	AX	Shoichet B.K., Leach A.R., Kuntz , I.D. Proteins: Structure, Function and Genetics, (1999), 34, 4-16
	AY	Tannor, D., Marten, B., Murphy, R., Friesner, R., Sitkoff, D., Nicholls, A., Ringnalda, M., Goddard, W.A., Honig, B. *"Accurate First Principles Calculation of Molecular Charge Distributions and Solvation Energies from Ab Initio Quantum Mechanics and Continuum Dielectric Theory"*, J. Am. Chem. Soc. (1994) 116, pp. 11875-11882
	AZ	Vaidehi, N., Jain, A., & Goddard III, W.A. Constant Temperature Constrained Molecular Dynamics: The Newton-Euler Inverse Mass Operator Method. J. Phys. Chem. 100, 10508 (1996)
	AAA	Vriend, G. WHAT IF: a molecular modeling and drug design program. J. Mol. Graph. 8, 52-56(1990)

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U.S. Patent Documents

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
GdL	AA	5,680,319	10/21/97	Rose et al.	364	496	
	AB	5,705,336	1/6/98	Hendry	435	6	
	AC	5,873,052	2/16/99	Sharaf	702	20	

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
GdL	AD	D'Aquino et al., "The Magnitude of the Backbone Conformational Entropy Change in Protein Folding," *Proteins: Structure, Function and Genetics,* (1996) 25:143-156
	AE	Ding, H. Q., Karasawa, N. & Goddard III, W.A., *"Atomic Level Simulations on a Million Particles: The Cell Multipole Method for Coulomb and London Nonbond Interactions"*, J. Chem. Phys. 97, 1992. p. 4309
	AF	Ding, H.Q., Karasawa, N. & Goddard III, W.A. *"The Reduced Cell Multipole Method for Coulomb Interactions in Periodic Systems with Million-Atom Unit Cells"*, Chem. Phys. Lett. 196, 1992, p. 6
	AG	Donnelly, D. *"Modeling alpha-helical Transmembrane Domains"*, Biochem. Soc. T. 21, 1993, pp. 36-39
	AH	Ewing, T.A. & Kuntz, I.D., *"Critical Evaluation of Search Algorithms for Automated Molecular Docking and Database Screening"*, J Comput. Chem. 18, 1997, pp. 1175-1189
	AI	Floriano, Wely B., Vaidehi, Nagarajan, Goddard, William A., Singer, Michael S. and Shepherd, Gordon *Molecular mechanisms underlying differential odor responses of a mouse olfactory receptor"*, PNAS, 2002, Vol. 97, No. 20, pp. 10712-10716
	AJ	Ghosh , A., Rapp, C.S. & Friesner, *R.A, "Generalized born model based on a surface integral formulation"*, J. Phys. Chem. B 102, 1998, pp. 10983-10990 ✓
	AK	Jain, A., Vaidehi, N. & Rodriguez, G., *"A fast recursive algorithm for molecular-dynamics simulation"*, J. Comp. Phys. 106, 1993, pp. 258-268 ✓
	AL	Kiyama et al., *"Homology Modeling of Gelatinase Catalytic Domains and Docking Simulations of Novel Sulfonamide Inhibitors"* Journal of Medicinal Chemistry, (1999) 42:1723-1738
	AM	Lim, K-T, Brunett, S., Iotov, M., McClurg, R.B., Vaidehi, N., Dasgupta, S., Taylor, S. & Goddard III, W.A. Molecular Dynamics for Very Large Systems on Massively Parallel Computers: The MPSim Program. J Comput. Chem. 18, 501 (1997) ✓
	AN	Malnic, B., Hirono, J., Sato, T. & Buck, L.B. *"Combinatorial Receptor Codes for Odors"* Cell (1999) 96, pp.713-723 ✓

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	8/20/03

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